Attorney Docket No. LWEP:119US

U.S. Patent Application No. 10/605,492

Reply to Final Office Action of October 4, 2005 Reply to Examiner's Answer of April 28, 2006

Date: May 17, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What Is Claimed Is:

Claim 1 (currently amended): An apparatus for implementing phase-contrast or

modulation-contrast observation on microscopes with the aid of a modulator arranged in each

pupil plane in the observation beam path and containing at least one layer modifying the phase or

amplitude, and of a stop arranged in the illumination beam path, wherein the modulator is

mounted dynamically tiltable tiltably and wherein at least a portion of the at least one layer

modifying the phase or amplitude is transmissive.

Claim 2 (previously presented): The apparatus as defined in Claim 1, wherein the at least

one layer of the modulator is configured in such a way that the greatest possible phase shift is

already achieved by a slight tilt.

Claim 3 (previously presented): The apparatus as defined in Claim 1, wherein the at least

one layer comprises glass plates of various glasses.

Claims 4 - 7 (cancelled)

Claim 8 (previously presented): The apparatus as defined in Claim 1, wherein the modulator

possesses a defined variable layer configuration.

Claim 9 (previously presented): The apparatus as defined in Claim 2, wherein the modulator

possesses a defined variable layer configuration.

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The apparatus as defined in Claim 3, wherein the modulator Claim 10 (previously presented):

possesses a defined variable layer configuration.

An apparatus for implementing phase-contrast Claim 11 (currently amended):

modulation-contrast observation on microscopes with the aid of a modulator arranged in each

pupil plane in the observation beam path and containing at least one layer modifying the phase or

amplitude, and of a stop arranged in the illumination beam path, wherein for phase shifting,

optical polarization means in combination with retardation plates are present and wherein the

modulator is mounted dynamically tiltable and wherein at least a portion of the at least one layer

modifying the phase or amplitude is transmissive.

An apparatus for implementing phase-contrast Claim 12 (currently amended):

modulation-contrast observation on microscopes with the aid of a modulator arranged in each

pupil plane in the observation beam path and containing at least one layer modifying the phase or

amplitude, and of a stop arranged in the illumination beam path, wherein various modulators are

arranged on a carrier in a manner introducible into the beam path of the microscope and are

selectably mounted, dynamically tiltable tiltably individually or dynamically tiltable tiltably

together with the carrier, on that carrier and wherein at least a portion of the at least one layer

modifying the phase or amplitude is non-reflective.

A method for implementing a defined phase shift in the Claim 13 (currently amended):

implementation of phase-contrast or modulation-contrast observation on microscopes with the

aid of a modulator arranged in each pupil plane in the observation beam path and containing at

least one layer modifying the phase or amplitude, and of a stop arranged in the illumination beam

path of the microscope, wherein the modulator is dynamically tilted and wherein the at least one

layer modifying the phase or amplitude is transmissive.

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